2007-2008

## A Guide for Parents and Families About What Your

## FIFTH GRADER

# Should Be Learning In School This Year

This guide shares important information about the South Carolina Academic Standards. These standards outline state requirements for your child's learning program and what students across the state should be able to do in certain subjects.



A good educational system provides many tools that help children learn. Academic standards are useful for making sure:

- teachers know what is to be taught;
- children know what is to be learned; and
- parents and the public can determine how well the concepts are being learned.

The following pages provide information about the South Carolina Academic Standards for mathematics, English language arts, science and social studies for **Fifth Grade**. The information can help you become familiar with what your child is learning at school and may include activities to reinforce and support your child's learning, selected book titles for additional reading, and Web site addresses for extended learning. Because sites change, please preview before students begin work. This version does not include every standard taught in **Fifth Grade**. The complete South Carolina Academic Standards for each subject area can be found at www.sctlc.com or at http://ed.sc.gov.

The state-developed test, Palmetto Achievement Challenge Test (PACT), is based on the South Carolina Academic Standards. The most current released PACT questions for all subject areas can be found online at http://www.ed.sc.gov/agency/offices/assessment/PACT/PACT ReleaseItems.html.

#### **South Carolina Academic Standards**

Here are seven key reasons parents should be in the know about the academic standards:

- Standards set clear, high expectations for student achievement.
  Standards tell what students need to do in order to progress through school on grade level.
- Standards guide efforts to measure student achievement. Results of tests (PACT) on grade-level academic standards show if students have learned and teachers have taught for mastery.

- 3. Standards promote educational equity for all. Instruction in every school in the state will be based on the same academic standards.
- 4. Standards help parents determine if children in South Carolina are taught the same subject content as children across the nation. South Carolina Academic Standards have been compared with and matched to national standards as well as standards of other states to make sure that they are challenging.
- Standards inform parents about the academic expectations for their child. Standards give parents more specific information for helping their child at home. Parents no longer have to guess the type of help their child needs to do better in school.
- 6. Standards enable parents to participate more actively in parent/ teacher conferences. Knowledge of the academic standards helps parents understand more about what their child is learning and what they can do at each grade level. Parents are able to have conversations with teachers about student progress in specific areas and understand more completely the progress of their child.
- 7. Standards help parents see how the current grade level expectations are related to successive years' expectations. Parents are able to see how their child's knowledge is growing from one year to the next.

#### WEB RESOURCES

South Carolina Department of Education (SDE): http://ed.sc.gov/agency/offices/cso/

South Carolina Education Oversight Committee (EOC): http://eoc.sc.gov

South Carolina: Teaching, Learning, and Connecting (SCTLC): www.sctlc.com

South Carolina Education Television (SCETV): www.knowitall.org

## **ENGLISH LANGUAGE ARTS**

Students should be able to:

#### Reading

- Distinguish among first-person, limited-omniscient (third person), and omniscient (third person) points of view in a story
- Understand how an author develops characters
- Understand how authors use figurative language, dialogue, and descriptions to create a desired tone or meaning
- Write, act, draw, and make presentations in response to reading
- Understand the use of stanzas, patterned rhymes and repetitive words, and phrases in poetry
- Understand the characteristics of legends, myths, speeches, and personal essays
- Summarize the evidence that supports the central idea in a nonfiction text in order to draw conclusions and make inferences
- Distinguish opinions that are supported from those that are not supported
- Understand how titles, various headings, print styles, white space, and captions aid in comprehending texts
- Use cause-and-effect relationships to make predictions in nonfiction texts
- Use surrounding words and phrases that provide an example, a definition or restatement to understand the meaning of a new word or word
- Analyze the meaning of words by using knowledge of their Greek or Latin parts
- Understand the meaning of figures of speech and euphemisms

#### Writing

- Organize writing by using planning strategies such as brainstorming
- Use a variety of sentence types and lengths when writing
- Use irregular adverbs and adjectives such as good, better, and best correctly
- Use interjections such as *hey* and *wow*
- Correctly use verbs that are commonly misused
- Capitalize the names of religions, languages, and ethnic and national groups
- Use colons and hyphens correctly
- Use commonly confused words such as affect and effect correctly
- Improve word choice and the development and organization of ideas by editing and revising writing
- Write book reviews and newsletter articles
- Write stories with a plot and a consistent point of view
- Use precise vocabulary and vivid details to write descriptions
- Create picture books, comic books, and graphic novels

#### Research

- Gather information by using books and magazines
- Find information on a research topic of interest and paraphrase the information
- List the titles, authors, and publication information of books used in research

- Use organizational strategies to prepare information for writing or speaking assignments
- Select graphics, in print or electronic form, to support written or oral presentations

#### **Activities**

- Provide a variety of types of reading materials for your child to use, such as books, magazines, newspapers, charts, diagrams, dictionaries, encyclopedias, atlases, almanacs, and nonprint media
- Read books from the local library or bookstore
- Discuss the meaning of and the reasons why an author may have used figurative language or euphemisms found in the text
- Help your child add clip art or other pictures to his/her writing
- Have your child share an oral report about a book read or a television show watched
- While watching television, point out opinions that are not supported by evidence
- When eating at a restaurant, discuss how the menu uses headings, titles, and white space to organize information
- When reading a story or watching a movie or television show, ask your child what he thinks about a characters' motives or personality
- Point out publication information in books
- Have your child create a news article about something that happened at home or in the neighborhood
- Count how many colons or hyphens your child can find in the newspaper
- Re-enact a favorite scene from a movie, television program, or story
- Have your child create comic strips

#### **Books**

- Cooper, Susan. *The Boggart*
- Curtis, Christopher Paul. Bud, Not Buddy
- Giff, Patricia Reilly. Lily's Crossing
- Naylor, Phyllis. *Beatles Lightly Toasted*
- Lowry, Lois. *Number the Stars*
- Paterson, Katherine. *Jip, His Story*
- Paulson, Gary. Hatchet
- Taylor, Mildred. *Mississippi Bridge*

#### **Web Sites**

- Carol Hurst's Children's Literature Site http://www.carolhurst.com
- Learning Page.com http://www.sitesforteachers.com
- National Parent Teacher Association http://www.pta.org
- Surfing the Net With Kids http://www.surfnetkids.com
- United States Department of Education http://www.ed.gov/parents
- Stories from the Web http://www.storiesfromtheweb.org
- American Library Association http://www.ala.org/ala/booklist/ booklist.htm

## **MATHEMATICS**

Students should be able to:

#### **Numbers and Operations**

- Apply an algorithm (method of solving a problem) to divide whole numbers fluently
- Understand the concept of prime (a number that has exactly two positive factors, itself and one) and composite numbers (a number that has more than two factors)
- Generate strategies to add and subtract fractions
- Apply an algorithm to add and subtract decimals through thousandths

#### Geometry

- Classify shapes as congruent (same size and shape)
- Translate between two-dimensional representations and threedimensional objects
- Predict results of combined multiple transformations (slide, flip, and turn)
- Analyze shapes for line and/or rotational symmetry (When a shape has line symmetry it can be divided into pieces that are mirror images of each other. When a shape has rotational symmetry it can be turned less than 360 degrees about a point and still fit exactly on itself).

#### Measurement

- Use a protractor to measure angles
- Use equivalencies to convert units of measure within the metric system
- Apply formulas to determine perimeter and area
- Apply strategies and formulas to determine volume
- Apply procedures to determine elapsed time within a 24-hour period

### **Data Analysis and Probability**

- Apply procedures to calculate the measures of central tendency
- Conclude why the sum of the probabilities of the outcomes of an experiment must equal one

#### **Activities:**

#### Have your child:

Record the time school starts in the morning and bedtime. Determine the amount of elapsed time between the two events.

- Convert the amount of soda in a 2.5-liter bottle into milliliters using the conversion 1 liter = 1.000 milliliters
- Gather the age of everyone in the house. Categorize each age as a prime number, composite number, or neither (i.e., 0 or 1). Calculate the average age and the range of the ages of the people in the house.
- Find simple three-dimensional objects around the house, such as a tennis ball, blocks, and a soda can. Represent these objects twodimensionally by drawing them with a pencil and paper.

#### **Books:**

- Burns, Marilyn. Spaghetti and Meatballs for All: A Mathematical Story
- Caron, Lucille. Fractions and Decimals
- Ernst, Lisa Campbell and Lee Ernst. *The Tangram Magician*
- Monroe, Eula Ewing. *Math Dictionary for Young People*

#### Web Sites:

- www.aplusmath.com Interactive site with games and a homework helper
- www.coolmath4kids.com Interactive site for students
- www.edu4kids.com Interactive site to practice basic facts
- www.funbrain.com/index.html Interactive math activities

### **SCIENCE**

Students should be able to:

#### **Inquiry**

- Identify questions suitable for generating a hypothesis
- Identify independent (manipulated), dependent (responding), and controlled variables in an experiment
- Plan and conduct controlled scientific investigations, manipulating one variable at a time
- Use appropriate tools and instruments (including a timing device and a 10x magnifier) safely and accurately when conducting a controlled scientific investigation
- Construct a line graph from recorded data with correct placement of independent (manipulated) and dependent (responding) variables
- Evaluate results of an investigation to formulate a valid conclusion based on evidence and communicate the findings of the evaluation in oral or written form
- Use a simple technological design process to develop a solution or a product, communicating the design by using descriptions, models, and drawings
- Use appropriate safety procedures when conducting investigations

#### **Ecosystems: Terrestrial and Aquatic**

- Recall the cell as the smallest unit of life and identify its major structures
- Summarize the composition of an ecosystem, considering both biotic factors and abiotic factors
- Compare the characteristics of different ecosystems
- Identify the roles of organisms as they interact and depend on one another through food chains and food webs in an ecosystem, considering producers and consumers, decomposers, predators and prey, and parasites and hosts
- Explain how limiting factors (including food, water, space, and shelter)
  affect populations in ecosystems

#### **Landforms and Oceans**

- Explain how natural processes affect Earth's oceans and land in constructive and destructive ways
- Illustrate the geologic landforms of the ocean floor
- Compare continental and oceanic landforms
- Explain how waves, currents, tides, and storms affect the geologic features of the ocean shore zone
- Compare the movement of water by waves, currents, and tides
- Explain how human activity has affected the land and the oceans of Earth

#### **Properties of Matter**

- Recall that matter is made up of particles too small to be seen
- Compare the physical properties of the states of matter
- Summarize the characteristics of a mixture, recognizing a solution as a kind of mixture
- Use the processes of filtration, sifting, magnetic attraction, evaporation, chromatography, and floatation to separate mixtures
- Explain how the solute and the solvent in a solution determine the concentration

- Explain how temperature change, particle size, and stirring affect the rate of dissolving
- Illustrate the fact that when some substances are mixed together, they chemically combine to form a new substance that cannot easily be separated
- Explain how the mixing and dissolving of foreign substances is related to the pollution of the water, air, and soil

#### **Forces and Motion**

- Illustrate the affects of force on motion
- Summarize the motion of an object in terms of position, direction, and speed
- Explain how unbalanced forces affect the rate and direction of motion in objects
- Explain ways to change the effect that friction has on the motion of objects
- Use a graph to illustrate the motion of an object
- Explain how a change of force or a change in mass affects the motion of an object

#### **Activities:**

Have your child:

- Build a terrarium or aquarium, adding the plants and animals needed to sustain the ecosystem
- Ask your child to think about ways that more birds could be attracted to a backyard feeder
- Research the impact of human and industrial growth on local ecosystems
- Using modeling clay, create a model of the ocean's floor labeling the different features
- Read labels from household products and discuss safety procedures related to the products
- Design a ramp and determine the speed of a toy car as it travels across the ramp at different heights

#### **Books:**

- Boudreau, Gloria. *Ecosystems Life in a Forest*
- Clifford, Nick. Incredible Earth
- Cobb, Vicki. Science Experiments You Can Eat
- Gardner, Robert. Science in Your Backyard
- Gilbreath, Alice T. *The Continental Shelf: An Underwater Frontier*
- Nankivell-Aston, Sally and Dorothy Jackson. Science Experiments with Forces
- Southgate, Merrie. *Agnes Pflumm and the Stonecreek Science Fair*
- Southgate, Merrie. *No Place Like Periwinkle*

#### Web Sites:

- AAAS Science Netlink www.sciencenetlinks.com
- Bill Nye, The Science Guy www.billnye.com
- Franklin Institute www.fi.edu
- Learning Network Parent Channel www.familyeducation.com
- NASA's earth science website http://kids.earth.nasa.gov

## **SOCIAL STUDIES**

Students should be able to:

#### **United States Studies: 1865 to Present**

- Summarize the goals of Reconstruction and explain the effects of Abraham Lincoln's assassination on the course of Reconstruction
- Summarize the provisions and purposes of the Thirteenth, Fourteenth, and Fifteenth Amendments to the Constitution
- Explain the effects of Reconstruction on African Americans
- Compare the economic and social effects of Reconstruction on different populations
- Explain the reasons for the rise of discriminatory laws and groups and their effect on the rights and opportunities of African Americans in different regions of the United States
- Explain how the natural environment affected travel to and settlement of the West
- Illustrate the effects of settlement on the environment of the West
- Summarize how railroads affected development of the West
- Provide examples of conflict and cooperation between groups in the West
- **Explain** the effects of the westward expansion on Native Americans
- Explain the role of new inventions and technologies in the Industrial Revolution
- Identify prominent inventors and scientists of the period and summarize their inventions or discoveries
- Explain the effects of immigration and urbanization on the American economy during the Industrial Revolution
- Summarize the significance of large-scale immigration and the contributions of immigrants to America in the early 1900s
- Explain how building cities and industries led to progressive reforms
- Summarize actions by the United States that contributed to the rise of this nation as a world power
- Summarize changes in daily life in the boom period of the 1920s
- Summarize the stock market crash of 1929 and the Great Depression
- Explain the immediate and lasting effect on American workers caused by innovations of the New Deal
- Explain the principal events and key figures related to the United States' involvement in World War II
- Summarize the political and social impact of World War II
- Summarize key developments in technology, aviation, weaponry, and communication and explain their effect on World War II and the economy of the United States
- Explain the effects of increasing worldwide economic interdependence following World War II
- Summarize the impact of cultural developments in the United States after World War II
- Summarize changes in the United States economy after World War II
- Explain the advancement of the civil rights movement in the United States
- Explain the philosophies and events of the Cold War
- Explain the political alliances and policies that affected the United States in the latter part of the twentieth century
- Use a map to identify the regions of United States political involvement since the fall of the communist states

 Explain how humans change the physical environment of regions and the consequences of such changes

- Explain how technological innovations have changed daily life in the United States since the early 1990s
- Identify examples of cultural exchange between the United States and other countries
- Summarize changes in United States foreign policy since 1992
- Compare the position of the United States on the world stage following World War I, World War II, and the collapse of communist states

#### **Activities:**

Have your child:

- Research specific laws against African Americans following the Civil War and discuss their effect on the rights and opportunities of African Americans
- Watch the evening news to see where the U.S. is politically involved. Map the places mentioned.
- Complete a graphic organizer that illustrates cooperation and conflict between different groups in the early West
- Interpret maps, charts, and/or graphs that show information about large-scale immigration to the U.S. in the early 1900s, such as where the immigrants came from or areas of the U.S. where they settled
- Look at pictures that illustrate daily life during the Great Depression. Talk about similarities and differences between people's daily lives then and now.
- Make a list of technological inventions around your house such as the telephone or light bulbs. Research the people who invented these devices and discuss how their invention has affected daily life.
- Look at a topographical map of the United States, noting features such as large mountain ranges or bodies of water. Discuss how these features affected travel to and settlement of the West.

#### Books:

- Bishop, Claire Huchet. *Twenty and Ten*
- Bunting, Eve. *Cheyenne Again*
- Cousins, Margaret. *The Story of Thomas Alva Edison*
- Hesse, Karen. *Letters from Rifka*
- Lasky, Kathryn. Dear American Series: Christmas After All
- Johnson, Tony. *The Harmonica*
- Lowery, Lois. *Number the Stars*
- MacLachlan, Patricia, Sarah, Plain and Tall
- McKissack, Patricia. Mary McLeod Bethune: A Great Teacher
- Oppenheim, Shulasmith Levey. *The Lily Cupboard*
- Parks, Rosa and Gregory J. Reed. Dear Mrs. Parks: A Dialogue with Today's Youth
- Patrick, Diane. The New York Public Library Amazing African-American History
- Say, Allen. *Grandfather's Journey*
- Taylor, Mildred. Song of the Trees

## **SOCIAL STUDIES**

Continued

#### Web Sites:

- American Local History Network www.alhn.org
- First Gov for Kids www.kids.gov
- History Place www.historyplace.com
- Kid Info www.kidinfo.com
- Library of Congress Country Studies http://lcweb2.loc.gov/frd/ cs/cshome.html
- Map Machine www.nationalgeographic.com/resources/ngo/maps
- Smithsonian National Museum of American History www. americanhistory.si.edu
- CIA's homepage for kids https://www.cia.gov/cia/ciakids
- The Gilder Lehrman Institute of American History www.gilderlehrman.org
- Graphic organizers http://www.enchantedlearning.com/ graphicorganizers/storymap/



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